

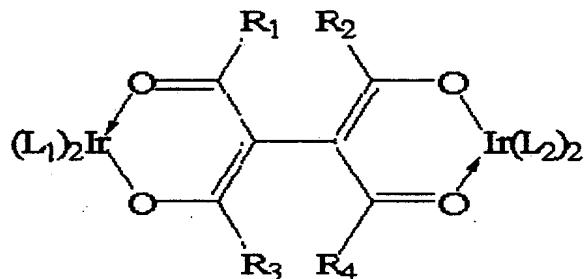
Listing of Claims:

Please amend the claims of the application as follows. This Listing of Claims will replace all prior versions and listings of claims in the application:

Claims

1. -- 55. (Canceled)

56. (New) A method of forming an electroluminescent device comprising a first electrode, a second electrode, and an electroluminescent layer between the first and second electrodes, said method including the steps of forming said electroluminescent layer by vacuum evaporating onto a substrate an iridium compound having the general chemical formula:



wherein:

L₁ and L₂ are selected from the group consisting of phenyl pyridine and substituted phenyl pyridines; and,

R₁ to R₄, which may be the same or different, are selected from the group consisting of hydrogen; substituted and unsubstituted aliphatic groups; substituted and unsubstituted aromatic, heterocyclic and polycyclic ring structures; fluorocarbon groups; and fluorine atoms.

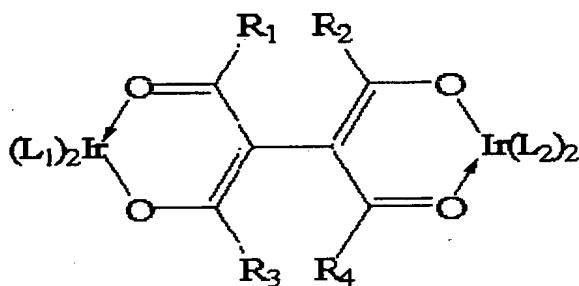
57. (New) The method of claim 56, wherein R₁ to R₄ are independently selected from the group consisting of alkyl, phenyl, fluorophenyl, biphenyl and naphthyl.

58. (New) The method of claim 56, wherein L₁ and L₂ are each phenyl pyridine.

59. (New) The method of claim 56, including the step of forming the electroluminescent layer by vacuum evaporating the iridium compound onto a substrate together with a second electroluminescent compound to form an electroluminescent layer in which the iridium compound and the second electroluminescent compound are mixed.

60. (New) The method of claim 59, wherein the second electroluminescent compound is 4,4-bis(9-dicarbazolyl)-biphenyl (CBP).

61. (New) An electroluminescent device comprising a first electrode, a second electrode, and an electroluminescent layer between the first and second electrodes, said electroluminescent layer comprising an electroluminescent iridium compound component together with an electroluminescent europium complex component mixed in a single layer or in separate layers, said iridium compound having the general chemical formula:

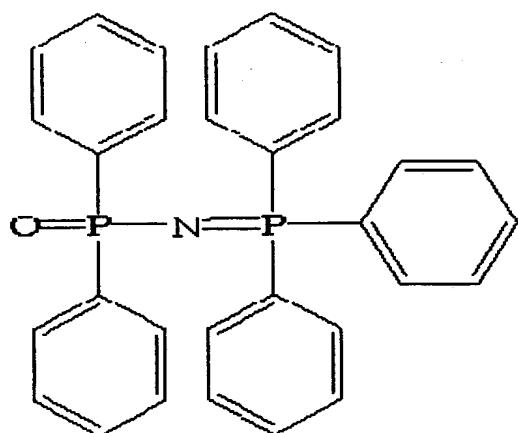


wherein:

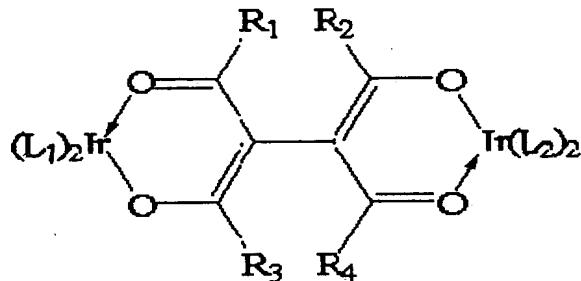
L₁ and L₂ are selected from the group consisting of phenyl pyridine and substituted phenyl pyridines; and,

R₁ to R₄, which may be the same or different, are selected from the group consisting of hydrogen; substituted and unsubstituted aliphatic groups; substituted and unsubstituted aromatic, heterocyclic and polycyclic ring structures; fluorocarbon groups; and fluorine atoms.

62. (New) The electroluminescent device of claim 61 wherein the europium complex component is Eu(DBM)₃OPNP in which DBM is dibenzoyl methane and OPNP is



63. (New) A method for preparing an electroluminescent compound having the general chemical formula:

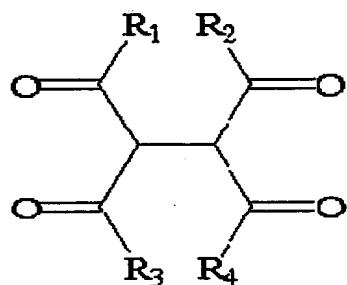


wherein:

L_1 and L_2 are selected from the group consisting of phenyl pyridine and substituted phenyl pyridines; and,

R_1 to R_4 , which may be the same or different, are selected from the group consisting of hydrogen; substituted and unsubstituted aliphatic groups; substituted and unsubstituted aromatic, heterocyclic and polycyclic ring structures; fluorocarbon groups; and fluorine atoms,

the method comprising the steps of reacting at least one of tetrakis(2-phenylpyridine-C²N) diiridium dichloride and substituted tetrakis(2-phenylpyridine-C²N) diiridium dichloride in an alcoholic solvent and in the presence of a weak base with a compound having the general chemical formula



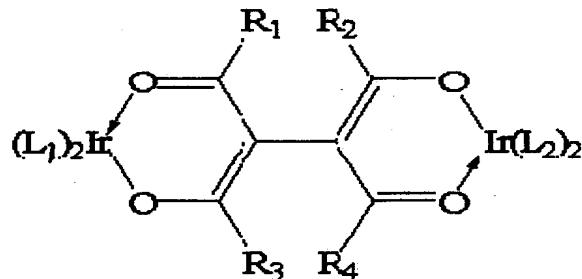
wherein R₁ to R₄ are as defined above.

64. (New) The method of claim 63, comprising the step of reacting tetrakis(2-phenylpyridine-C²N) diiridium dichloride with 3,4-diacetylhexane-2,5-dione.

65. (New) The method of claim 63, wherein the weak base is sodium carbonate.

66. (New) The method of claim 63, wherein the alcoholic solvent is 2-ethoxyethanol.

67. (New) An electroluminescent iridium compound capable of being vacuum-evaporated onto a substrate for use as an electroluminescent layer, said compound having the general chemical formula:



wherein:

L₁ and L₂ are selected from the group consisting of phenyl pyridine and substituted phenyl pyridines; and,

R_1 to R_4 , which may be the same or different, are selected from the group consisting of hydrogen; substituted and unsubstituted aliphatic groups; substituted and unsubstituted aromatic, heterocyclic and polycyclic ring structures; fluorocarbon groups; and fluorine atoms.

68. (New) A compound according to claim 67, wherein R_1 to R_4 are selected from the group consisting of alkyl, phenyl, fluorophenyl, biphenyl and naphthyl.

69. (New) A compound according to claim 67, which exhibits green electroluminescence.

70. (New) A compound according to claim 67 wherein L_1 and L_2 are each phenyl pyridine and which exhibits electroluminescence at color coordinates $X = 0.35-0.38$, $Y = 0.56-0.59$.